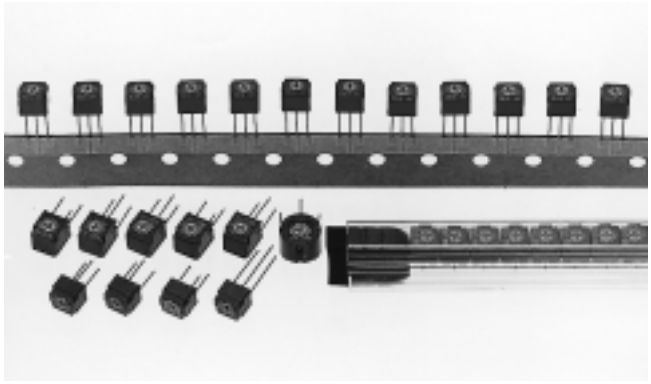
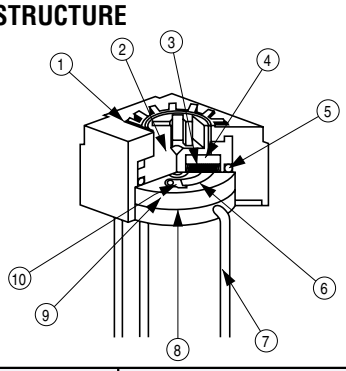
SINGLE TURN CERMET TRIMMERS CT-6



FEATURES

- Various configurations to choose from
- High setting stability and excellent adjustability due to precious metal alloy multi-contact wiper
- "O" ring sealed and washable

INTERNAL STRUCTURE



	Part name	Material	Flammability
①	Housing	PBT (Polybutyleneterephthalate)	UL-94V-0
②	Rotor		
③	Wiper	Multi metal alloy	—
④	Rubber plate	Silicone rubber	
⑤	"O" ring	Silicone rubber	UL-94HB
⑥	Resistive element	RuO_2 cermet	—
⑦	Terminal pin	Copper, Solder-plated	
⑧	Adhesive	Epoxy	UL-94V-0
⑨	Base element	Ceramic	—
⑩	Electrode	Ag-Pd cermet	

CFCs, Halon, Carbon tetrachloride and designated bromic flame retardant PBBOs and PBBs are not used in our products.

PART NUMBER DESIGNATION

C T - 6 T V - 0 0 5 k Ω (5 0 2)

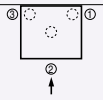
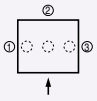
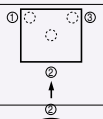
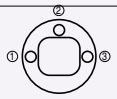
- Series name: CT-6
- Style and package option: TV-00
- Resistance value: 5kΩ
- Resistance code: (502)

❊ Please refer to the LIST OF PART NUMBERS when placing orders.

■ Specifications are subject to change without notice. Specifications in this catalog are for reference. The formal specification sheets will be submitted upon request.

CT-6
CERMET TRIMMERS

■ LIST OF PART NUMBERS

Adjustment position	Shape of terminal (Top view)	Form of packaging: Taping	Form of packaging: Magazine (stick)	Form of packaging: Bulk packaging	Remarks
Top adjustment		CT-6TP (Ammo pack type)	CT-6MP	CT-6P	The pin length of CT-6TP & CT-6MP is different from CT-6P.
				CT-6W	—
				➔ CT-6R	—
		CT-6TV-00 (Ammo pack type) CT-6TV-01 (Tape & Reel type)		CT-6V	—
Side adjustment (↑ Adjustment direction)			CT-6MS	CT-6S	The pin length of CT-6MS is different from CT-6S.
				CT-6X	—
		CT-6TH-00 (Ammo pack type) CT-6TH-01 (Tape & Reel type)		CT-6H	The pin length of CT-6TH-00 and CT-6TH-01 is different from CT-6H.
				CT-6N	—
Rear adjustment				➔ CT-6F	—
Pieces in package		1000 pcs./taping	75 pcs./stick	50 pcs./pack	—

<Nominal resistance values>

➔ 10 Ω
➔ 20 Ω
50 Ω
100 Ω
200 Ω
500 Ω
1 kΩ
2 kΩ
5 kΩ
10 kΩ
20 kΩ
50 kΩ
100 kΩ
200 kΩ
500 kΩ
1 MΩ
2 MΩ

Fig. 1

⊘: Not manufactured

➔ : **Semi-standard**

❊ The above part numbers are all available with the respective combination of <Nominal resistance values> (Fig. 1).
❊ Verify the above part numbers when placing orders.
❊ Taping and magazine versions must be purchased in taping or stick units.

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CT-6
CERMET TRIMMERS

■ ELECTRICAL CHARACTERISTICS

Nominal resistance range	10 Ω ~ 2 MΩ
Total resistance tolerance	± 10 %
Power ratings	0.5 W (70 °C) 0 W (125 °C)
Resistance law	Linear law
Maximum input voltage	DC200 V or power rating, whichever is smaller
Maximum wiper current	100 mA or power rating, whichever is smaller
Effective electrical angle	220 ° (1 turn)
End resistance	1 % or 2 Ω, whichever is greater
C.R.V.	1 % or 3 Ω, whichever is greater
Operating temp. range	–55 ~ +125 °C
Temp. coefficient	10 Ω ~ 20 Ω : ± 250 ppm/°C maximum 50 Ω ~ 2 MΩ : ± 100 ppm/°C maximum
Insulation resistance	1000 MΩ minimum (DC500 V)
Dielectric strength	AC900 V, 60 s
Net weight	Approx. 0.61 g (CT-6P, W, R, V) Approx. 0.65 g (CT-6S, X, H, N) Approx. 0.92 g (CT-6F)

■ MECHANICAL CHARACTERISTICS

Mechanical angle	260 ° (1 turn)
Operating torque	2 ~ 20 mN·m {20 ~ 204 gf·cm}
Stop strength	50 mN·m {510 gf·cm} minimum
Rotational life	200 cycles [ΔR/R ≦ ± (2 Ω +3 %)]
Teminal to strength	10 N {1.02 kgf} minimum (Tensile strength)
Thrust to rotor	10 N {1.02 kgf} minimum
Solderability	235 °C, 2 s

{ } : Reference only

■ ENVIRONMENTAL CHARACTERISTICS

Test item	Test conditions	Specifications
Thermal shock	–65 ~ +125 °C (0.5 h), 5 cycles	[ΔR/R ≦ 1 %] [S.S. ≦ 1 %]
Humidity	–10 ~ +65 °C (80 ~ 98 %RH), 10 cycles, 240 h	[ΔR/R ≦ 2 %]
Shock	981 m/s², 6 ms 6 directions for 3 times each	[ΔR/R ≦ 1 %] [S.S. ≦ 1 %]
Vibration	Amplitude of 1.52 mm or Acceleration of 196 m/s², 10~2000 Hz, 3 directions, 12 times each	
Load life	70 °C, 0.5 W 1000 h	[ΔR/R ≦ 3 %] [S.S. ≦ 1 %]
Low temp. operation	–55 °C, 2 h	[ΔR/R ≦ 2 %] [S.S. ≦ 2 %]
High temp. exposure	125 °C, 250 h	[ΔR/R ≦ 3 %] [S.S. ≦ 2 %]
Immersion seal	85 °C, 60 s	No leaks (No continuous bubbles)
Soldering heat	350 °C, 3 s	[ΔR/R ≦ 1 %]

ΔR/R : Change in total resistance
S.S. : Setting stability

■ MAXIMUM INPUT RATINGS

Nominal resistance values (Ω)	Resistance code	Maximum input voltage (V)	Maximum wiper current (mA)
➔ 10	100	1.00	100
➔ 20	200	2.00	100
50	500	5.00	100
100	101	7.07	70.7
200	201	10.0	50.0
500	501	15.8	31.6
1 k	102	22.4	22.4
2 k	202	31.6	15.8
5 k	502	50.0	10.0
10 k	103	70.7	7.07
20 k	203	100	5.00
50 k	503	158	3.16
100 k	104	200	2.00
200 k	204	200	1.00
500 k	504	200	0.40
1 M	105	200	0.20
2 M	205	200	0.10

➔ : Semi-standard

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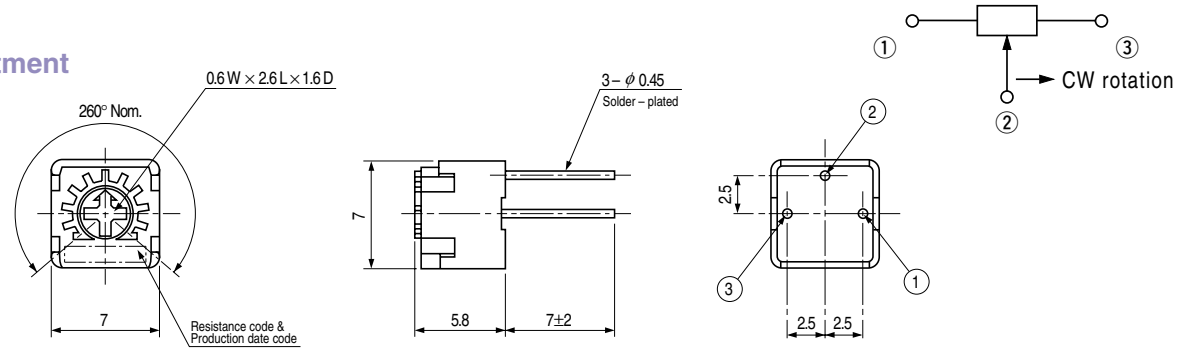
CT-6
CERMET TRIMMERS

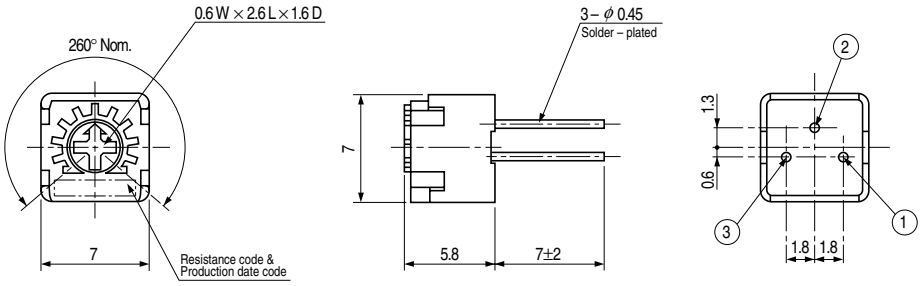
OUTLINE DIMENSIONS

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

● CT-6P
Top adjustment

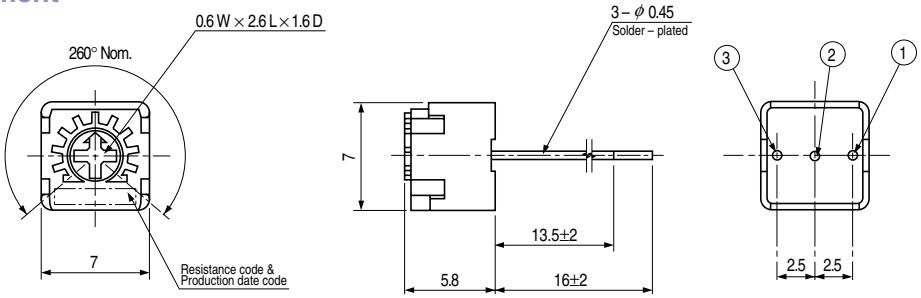


● CT-6W
Top adjustment

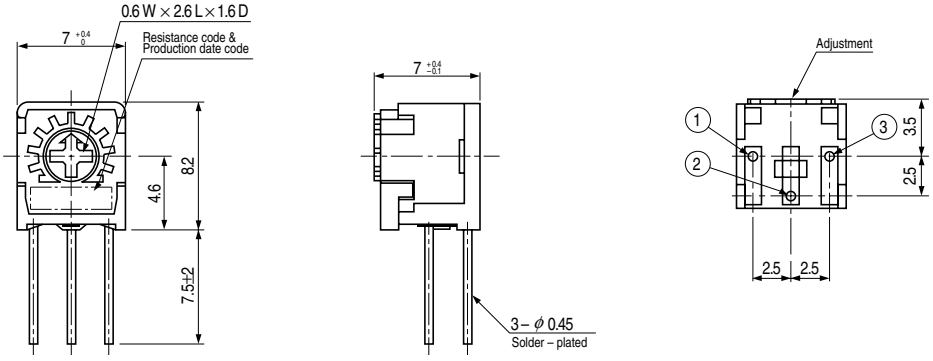


★ Pin pitch in W type is different from P type.

● CT-6V
Top adjustment



● CT-6S
Side adjustment



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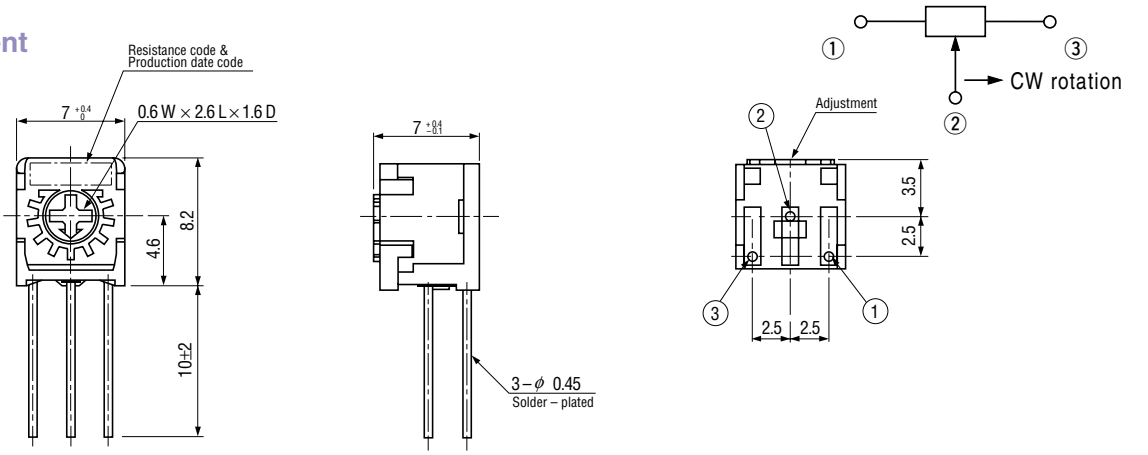
CT-6
CERMET TRIMMERS

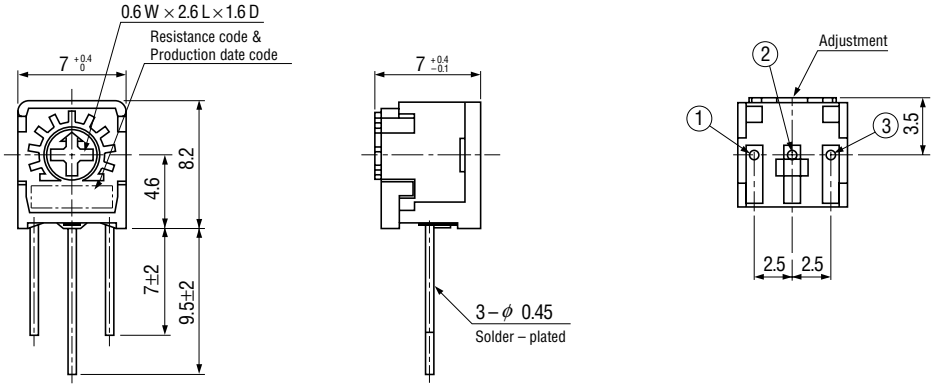
■ OUTLINE DIMENSIONS

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

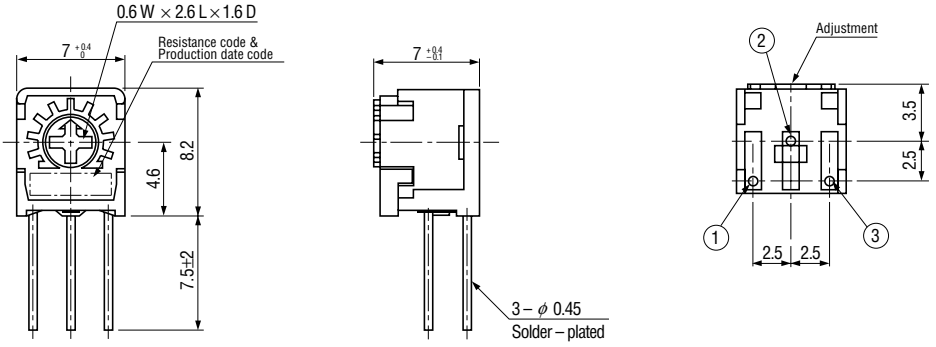
● CT-6X
Side adjustment



● CT-6H
Side adjustment



● CT-6N
Side adjustment



★ Terminals ① & ③ position in N type is different from X type.

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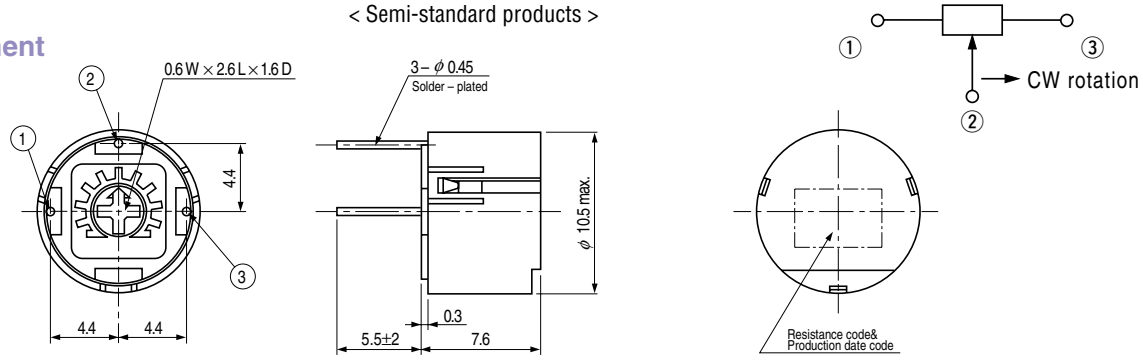
CT-6
CERMET TRIMMERS

■ OUTLINE DIMENSIONS

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

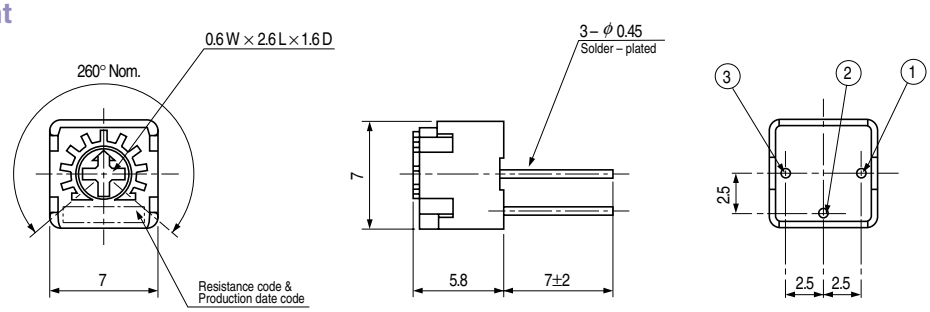
● CT-6F
Rear adjustment

< Semi-standard products >



● CT-6R
Top adjustment

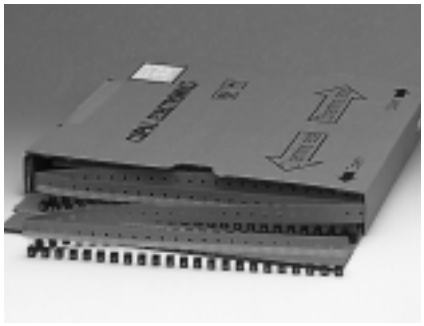
< Semi-standard products >



■ PACKAGING SPECIFICATIONS

<Taping packaging specifications>

● Taping version is packaged in 1000 pcs. per reel.
Orders will be accepted for units of 1000 pcs., i.e., 1000, 2000, 3000 pcs., etc.

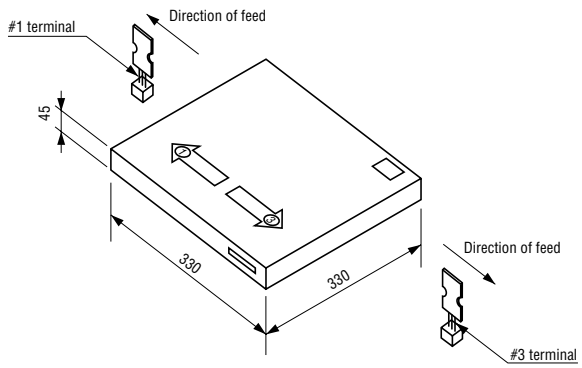


Ammo pack type

Ammo Pack

● Package size: 330 mm × 330 mm × 45 mm
● The leader and end of the tape have an empty part of minimum 300 mm respectively.
● There are two tape outlets on the package. You will get a different terminal alignment direction by choosing either one outlet.
The one outlet is to feed the ammo from the right side and the other is to feed it from the left side. #3 terminals of each product come first when you pull the ammo from the right side outlet marked #3 terminal.

● Taping version (ammo pack type) is boxed with one reel (1000 pcs.).



● Gross weight of the boxing version TV-00 : Approx. 840 g
TH-00 : Approx. 930 g
TP : Approx. 850 g

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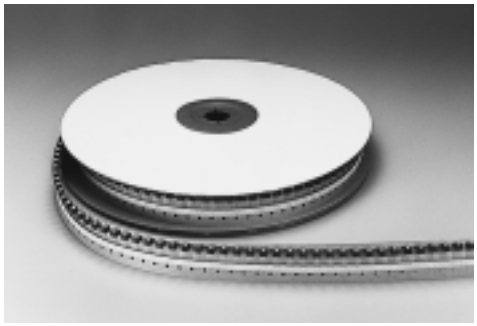
CT-6
CERMET TRIMMERS



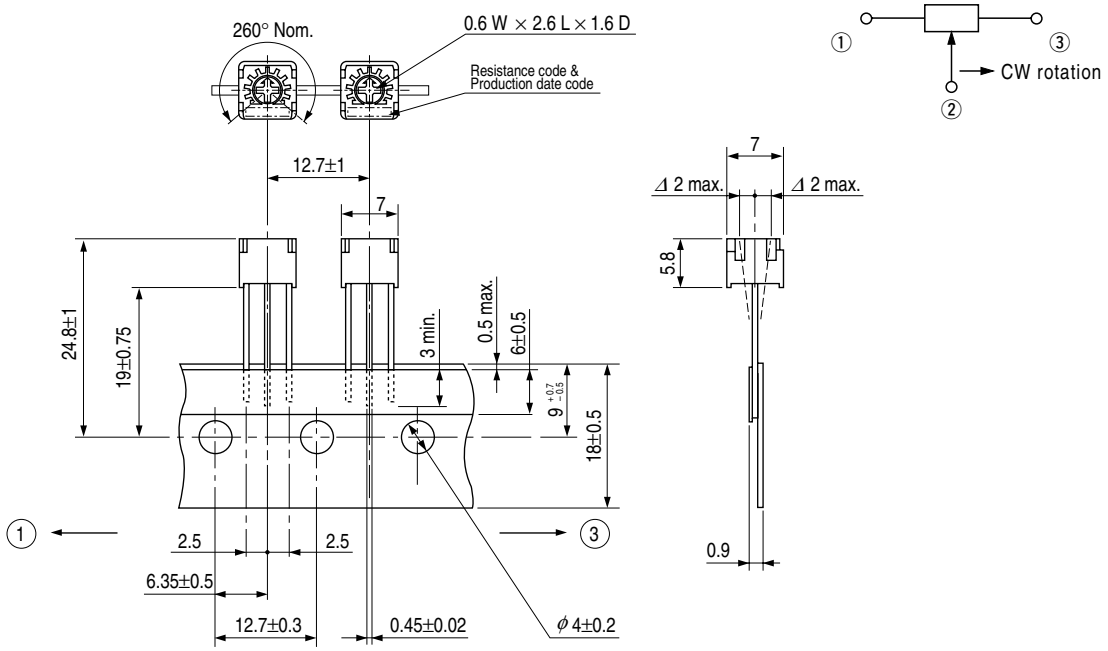
Tape & Reel type

Tape & Reel

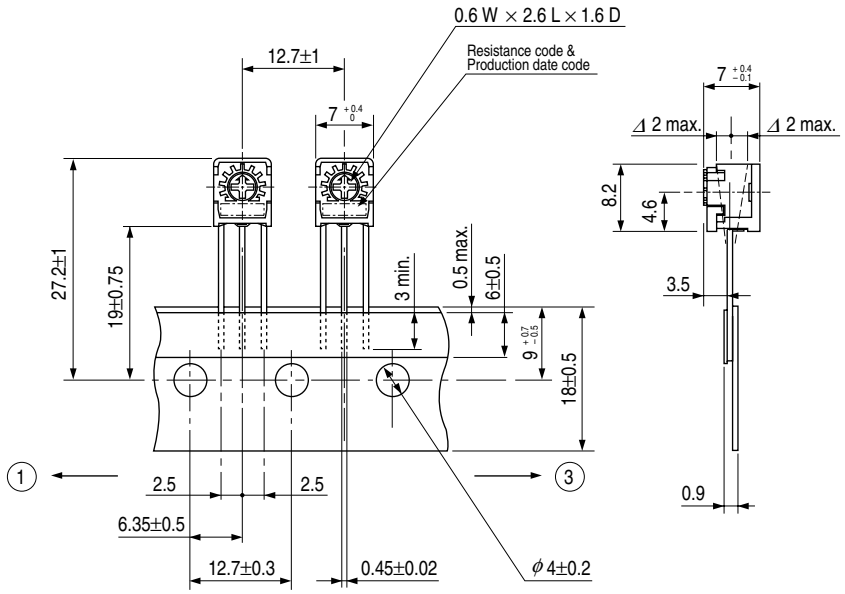
- Reel size: 360 mm dia./44 mm inside flange
  30 mm hole dia./56mm overall thickness. 80 mm core dia.
- The leader and end of the tape have empty part for minimum 300 mm respectively.
- #1 terminals come first when you pull the tape from the outlet.
- Gross weight of the boxing version.
  TV-01 : Approx. 965 g
  TH-01 : Approx. 1170 g

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

● CT-6TV
Top adjustment



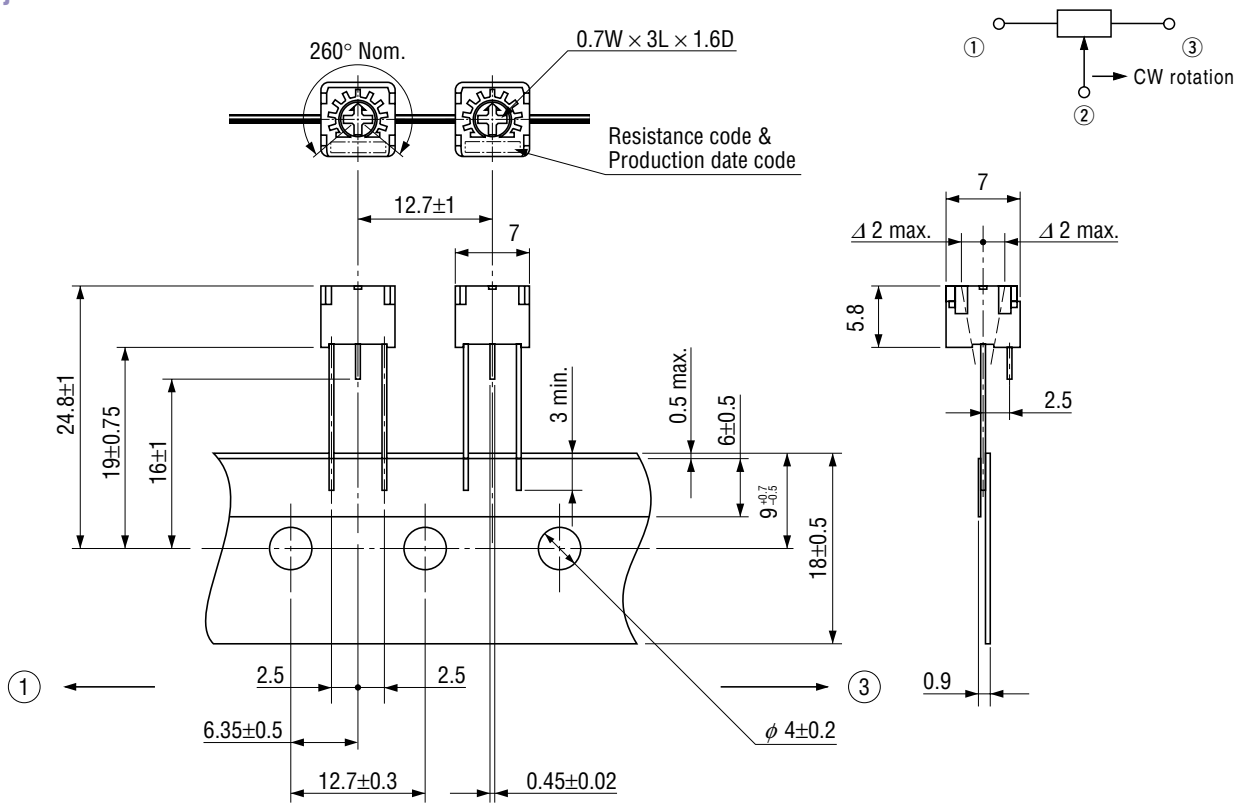
● CT-6TH
Side adjustment



CT-6
CERMET TRIMMERS

● CT-6TP
Top adjustment

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)



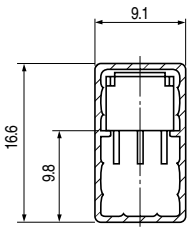
<Magazine packaging specifications>

- Magazine is packaged 75 pcs. per stick.
  Orders will be accepted for units of 75 pcs. i.e., 150, 225 pcs., etc.
- Magazine is packed 3000 pcs. sticks per box.

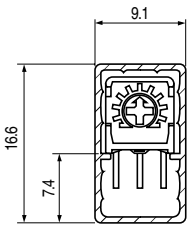
Plastic magazine type

<Typical>
Plastic magazine length = 580 mm
(Without rubber cap)

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)



CT-6MP



CT-6MS

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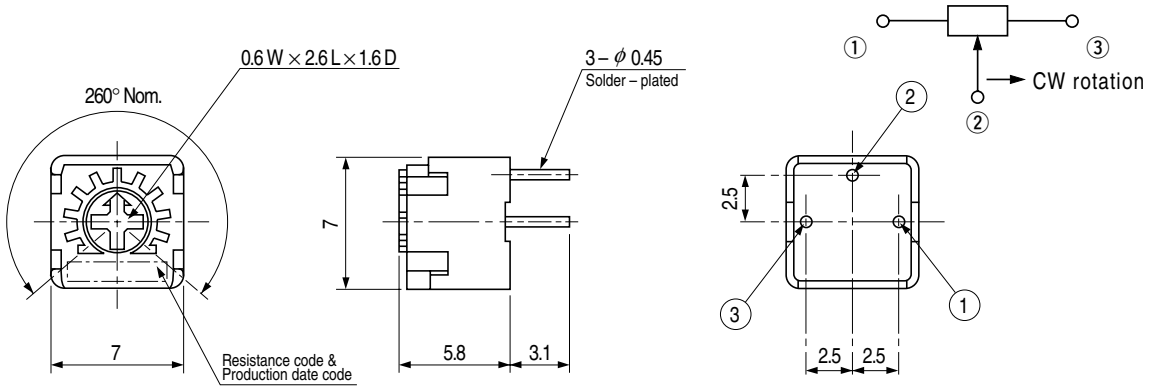
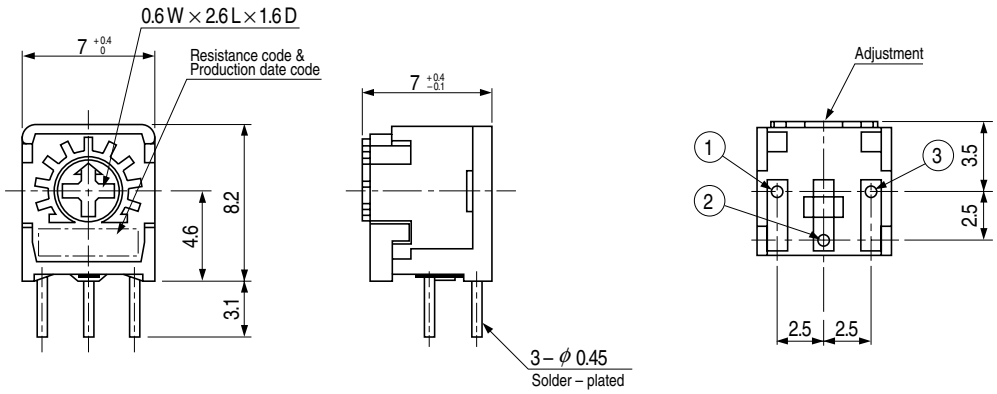
CT-6
CERMET TRIMMERS

● CT-6MP
Top adjustment

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)



● CT-6MS
Side adjustment



<Bulk packaging specifications>

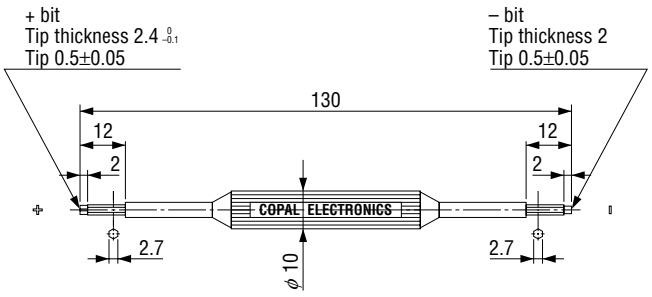
- Unit of bulk in viniyl bag packaging is 50 pcs. per pack.
- Boxing of bulk in viniyl bags is performed with 200 pcs. (CT-6F is 100 pcs.) per box.

■ ADJUSTMENT TOOL, MODEL TA-64

(Unit: mm)

- Good for both minus and cross slot rotors / shafts.
- Recommended for use with the following copal trimmers.

Recommended models	
+ bit	– bit
CT-6	ST-4
FT-6	RJ-4
	RJ-6
	TM-7



Material : Polyoxymethylene

❊ Note : Please do not use the tool for purposes other than adjustment of electronic components.

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